

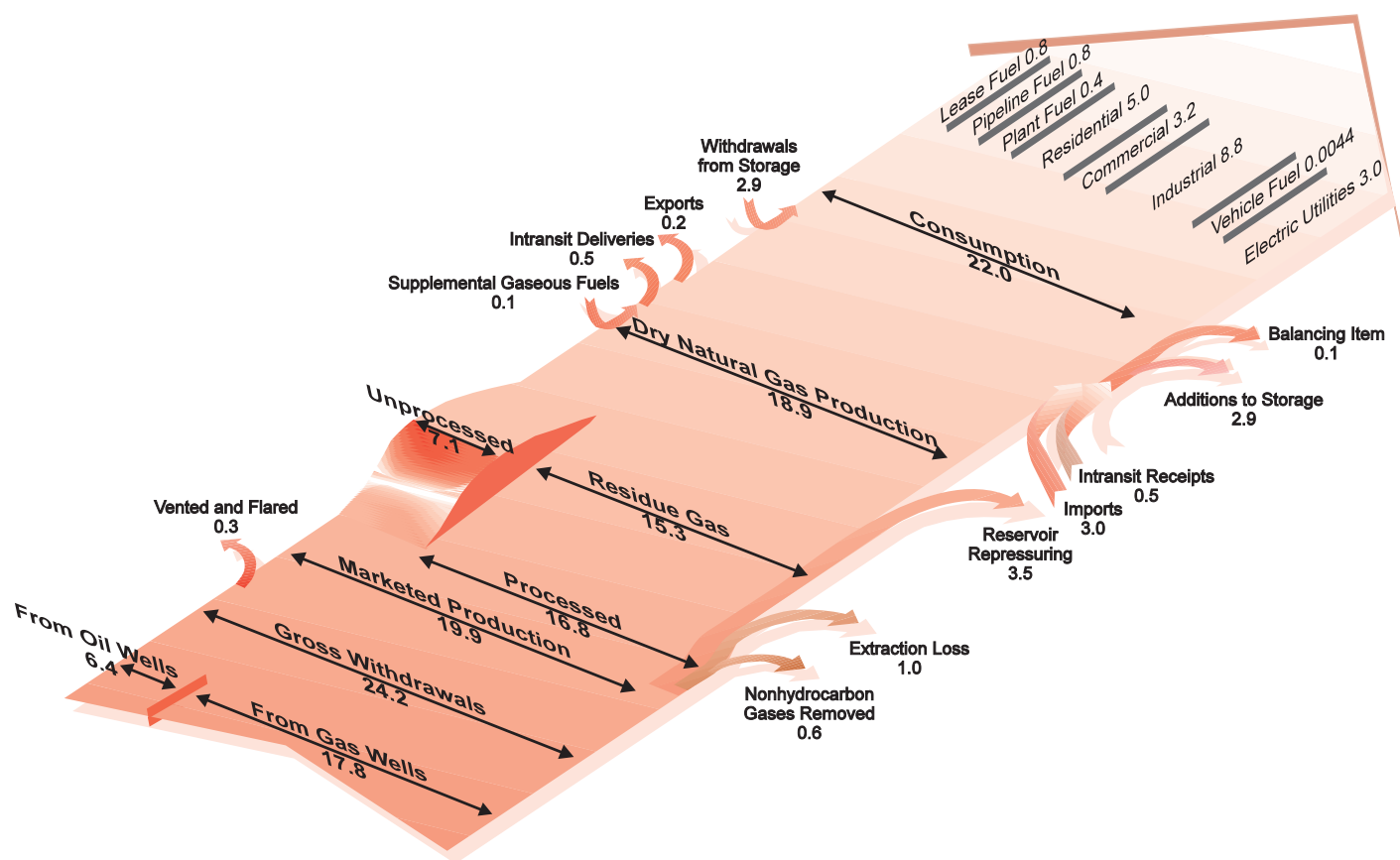
Overview

From 1996 to 1997, natural gas production and consumption, two major indicators of market activity, were fairly stable. Production rose slightly, by less than 1 percent, and consumption was virtually unchanged. Net imports also increased by a small amount and maintained a 13 percent share of consumption. Underground storage continued to play an integral role in the restructured competitive markets by enabling supply reliability during periods when demand was high. Prices also rose from the wellhead to the burner tip. Natural gas has accounted for 25 percent of total energy consumption in the United States since 1992, and this share was maintained in 1997.

Natural gas marketed production rose in 1997 to 19.9 trillion cubic feet, the highest level since 1981. Production has risen 3.0 trillion cubic feet since 1986, but current volumes remain 12 percent below the historical peak of 22.6 trillion cubic feet in 1973. For the fifth year in a row, the number of producing gas wells and gas-condensate wells rose, reaching 311,338 in 1997, 3 percent above the 1996 level.

During 1997, net imports rose for the 11th consecutive year, representing 13 percent of U.S. natural gas consumption. Canada continued its role as the major supplier of

Figure 1. Natural Gas Flow Diagram, 1997
(Trillion Cubic Feet)



Note: Totals may not add due to independent rounding.
Sources: Energy Information Administration (EIA), Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition"; Form EIA-895, "Monthly Quantity and Value of Natural Gas Report"; Form EIA-816, "Monthly Natural Gas Liquids Report"; Form EIA-759, "Monthly Power Plant Report"; Office of Fossil Energy, U.S. Department of Energy, Natural Gas Imports and Exports; U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves, Annual Reports, DOE/EIA-0216, and the U.S. Minerals Management Service.

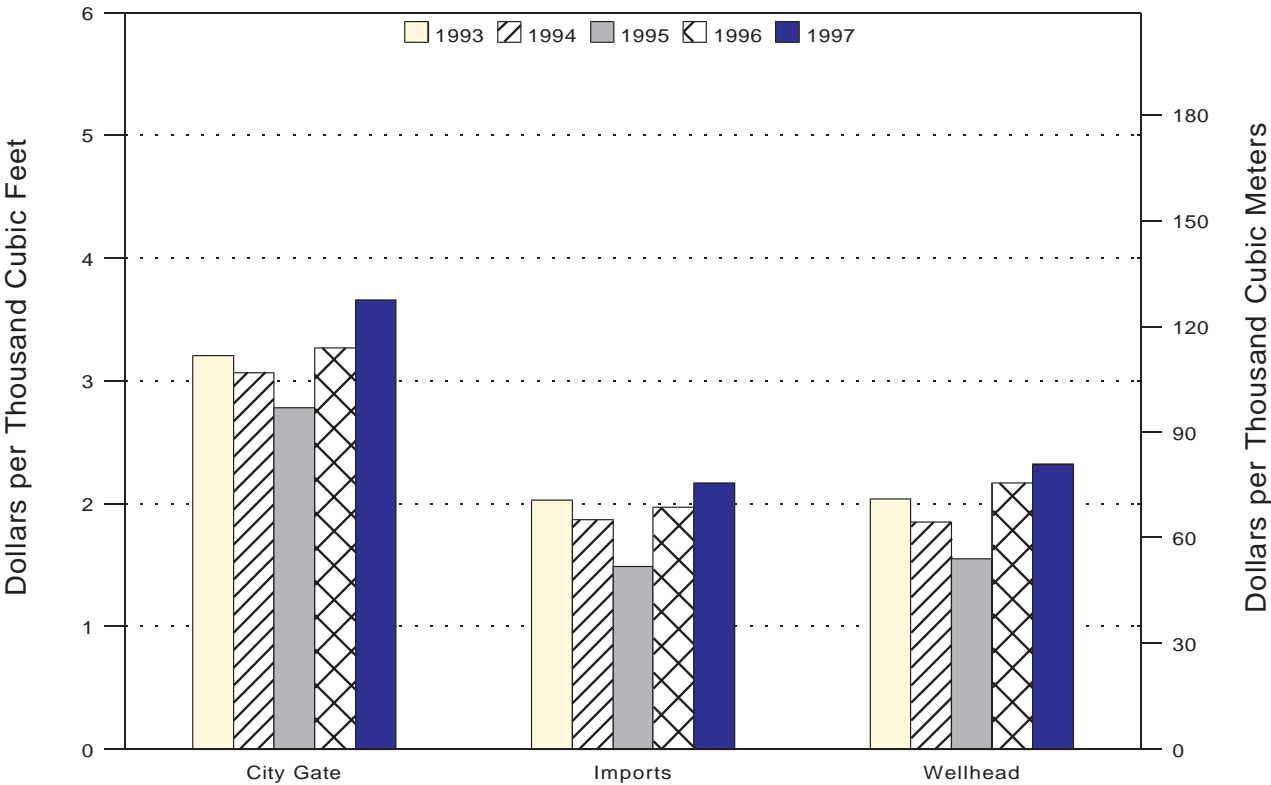
natural gas imported into the United States. However, the growth rate of U.S. imports of Canadian gas was minimal because pipeline capacity utilization remained near its maximum level and capacity expanded very little during the year. Increases in pipeline capacity are under development or have been proposed for the next several years. Cross border trade with Mexico also increased in 1997, and that nation holds substantial promise for expansion on both the supply and demand sides of the market. Spot purchases of liquefied natural gas (LNG) rose as the United States responded to LNG availability in the world marketplace. Spot purchases of LNG were received from the United Arab Emirates (Abu Dhabi), and, for the first time, from Australia.

At the end of 1997, there were 418 active underground storage fields in operation in the United States, with nearly 4.0 trillion cubic feet of working gas capacity. From January through December, withdrawals from underground storage were larger than injections and resulted in a net change of minus 24.0 billion cubic feet. For LNG storage, additions exceeded withdrawals by 0.3 billion cubic feet. The net change for total gas in storage for the year was minus 23.6 billion cubic feet. This change resulted in an addition to natural gas supplies.

Increases in consumption in the commercial and electric utility sectors were offset by declines in the residential and industrial sectors. Commercial consumption set a new record, 3.2 trillion cubic feet, surpassing the previous record high from a year ago by 2 percent. Natural gas consumption by electric utilities rose substantially in 1997 to 3.0 trillion cubic feet, 9 percent above last year. Two States, California and New York, accounted for more than half of the increase in this sector.

Prices rose from the wellhead to the burner tip. The average wellhead price increased in 1997 for the second year in a row. It reached \$2.32 per thousand cubic feet, 7 percent more than the 1996 price of \$2.17 and 50 percent above the 1995 low of \$1.55. Following the trend in prices at the wellhead, prices for sales to the industrial and electric utility sectors rose greatly from 1995 to 1996, but much more modestly from 1996 to 1997. By contrast, the increase in price paid for deliveries to the residential sector from 1996 to 1997 was larger than the increase from 1995 to 1996. In the commercial sector, the percentage increase in price was about the same in each time period. These consumers pay higher prices for gas than industrial and electric utility consumers because they have fewer options for service and require high quality service during periods of peak demand.

Figure 2. Selected Average Prices of Natural Gas in the United States, 1993-1997



Sources: Energy Information Administration (EIA), Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers"; Form FPC-14, "Annual Report for Importers and Exporters of Natural Gas" (1993 and 1994); Office of Fossil Energy, U.S. Department of Energy, Natural Gas Imports and Exports (1995 through 1997); Form EIA-627, "Annual Quantity and Value of Natural Gas Report" (1993 through 1995); and Form EIA-895, "Monthly Quantity and Value of Natural Gas Report" (1996 and 1997).

Table 1. Summary Statistics for Natural Gas in the United States, 1993-1997

	1993	1994	1995	1996	1997
Reserves (billion cubic feet)					
Estimated Proved Reserves (dry) as of December 31	162,415	163,837	165,146	166,474	167,223
Number of Gas and Gas Condensate Wells					
Producing at End of Year	282,152	291,773	298,541	301,811	311,338
Production (million cubic feet)					
Gross Withdrawals					
From Gas Wells.....	16,691,139	17,351,060	17,282,032	17,680,777	17,844,046
From Oil Wells.....	6,034,504	6,229,645	6,461,596	6,370,888	6,368,631
Total	22,725,642	23,580,706	23,743,628	24,051,665	24,212,677
Repressuring	-3,103,014	-3,230,667	-3,565,023	-3,510,330	-3,491,542
Nonhydrocarbon Gases Removed	-413,971	-412,178	-388,392	-518,425	-592,134
Wet After Lease Separation	19,208,657	19,937,861	19,790,213	20,022,909	20,129,001
Vented and Flared	-226,743	-228,336	-283,739	-272,117	-263,819
Marketed Production	18,981,915	19,709,525	19,506,474	19,750,793	19,865,182
Extraction Loss	-886,455	-888,500	-907,795	-958,178	-963,759
Total Dry Production	18,095,460	18,821,025	18,598,679	18,792,615	18,901,423
Supply (million cubic feet)					
Dry Production.....	18,095,460	18,821,025	18,598,679	18,792,615	18,901,423
Receipts at U.S. Borders					
Imports	2,350,115	2,623,839	2,841,048	2,937,413	2,994,173
Intransit Receipts	324,093	487,760	492,481	536,333	548,000
Withdrawals from Storage					
Underground Storage.....	2,717,064	2,508,151	2,974,102	2,911,327	2,824,245
LNG Storage	82,189	70,689	50,446	69,287	69,517
Supplemental Gas Supplies.....	118,999	110,826	110,290	109,455	103,153
Balancing Item.....	-109,593	-415,579	-230,002	278,937	76,044
Total Supply	23,578,326	24,206,711	24,837,044	25,635,365	25,516,554
Disposition (million cubic feet)					
Consumption	20,279,095	20,707,717	21,580,665	21,966,991	21,972,770
Deliveries at U.S. Borders					
Exports	140,183	161,739	154,119	153,393	157,006
Intransit Deliveries.....	324,093	472,499	492,481	536,333	516,620
Additions to Storage					
Underground Storage.....	2,759,738	2,796,279	2,565,882	2,905,592	2,800,294
LNG Storage	75,217	68,478	43,897	73,057	69,865
Total Disposition	23,578,326	24,206,711	24,837,044	25,635,365	25,516,554
Consumption (million cubic feet)					
Lease Fuel.....	723,118	699,842	792,315	800,004	775,619
Pipeline Fuel.....	624,308	685,362	700,335	711,446	751,595
Plant Fuel	448,822	423,878	427,853	450,033	426,873
Delivered to Consumers					
Residential.....	4,956,445	4,847,702	4,850,318	5,241,414	4,983,772
Commercial	2,861,569	2,895,013	3,031,077	3,158,244	3,218,606
Industrial.....	7,981,433	8,167,033	8,579,585	8,870,422	8,842,896
Vehicle Fuel.....	960	1,741	2,674	2,932	4,424
Electric Utilities	2,682,440	2,987,146	3,196,507	2,732,496	2,968,984
Total Delivered to Consumers	18,482,847	18,898,635	19,660,161	20,005,508	20,018,683
Total Consumption.....	20,279,095	20,707,717	21,580,665	21,966,991	21,972,770
Delivered for the Account of Others (million cubic feet)					
Residential.....	44,314	42,338	45,269	49,148	61,013
Commercial	460,097	599,058	706,139	706,667	939,086
Industrial.....	5,644,894	6,112,919	6,517,352	7,151,885	7,273,764
Electric Utilities	1,658,438	2,092,124	2,110,284	1,871,496	1,932,394

See footnotes at end of table.

Table 1. Summary Statistics for Natural Gas in the United States, 1993-1997 (Continued)

	1993	1994	1995	1996	1997
Firm Deliveries (million cubic feet)					
Residential.....	4,957,208	4,843,995	4,846,360	5,236,112	4,980,060
Commercial.....	2,553,679	2,559,500	2,650,412	2,799,442	2,754,852
Industrial.....	4,624,853	4,734,106	5,140,048	5,388,436	5,306,167
Electric Utilities.....	1,522,061	1,580,745	1,758,945	1,506,864	1,445,885
Vehicle Fuel.....	792	1,336	2,449	2,674	4,168
Interruptible Deliveries (million cubic feet)					
Residential.....	NA	3,706	3,958	5,301	3,712
Commercial.....	307,890	335,513	380,665	358,802	463,753
Industrial.....	3,356,581	3,432,927	3,439,537	3,481,986	3,536,729
Electric Utilities.....	922,962	1,210,453	1,147,860	989,185	1,177,631
Vehicle Fuel.....	168	405	225	258	257
Number of Consumers					
Residential.....	52,535,411	53,392,557	54,322,179	55,263,673	56,186,958
Commercial.....	4,464,906	4,533,905	4,636,500	4,720,227	5,004,384
Industrial.....	209,666	202,940	209,398	206,049	238,905
Average Annual Consumption per Consumer (thousand cubic feet)					
Residential.....	94	91	89	95	89
Commercial.....	641	639	654	669	643
Industrial.....	38,067	40,244	40,973	43,050	37,014
Average Prices for Natural Gas (dollars per thousand cubic feet)					
Wellhead (Marketed Production).....	2.04	1.85	1.55	2.17	2.32
Imports.....	2.03	1.87	1.49	1.97	2.17
Exports.....	2.59	2.50	2.39	2.97	3.02
Pipeline Fuel.....	1.97	1.70	1.49	2.27	2.29
City Gate.....	3.21	3.07	2.78	3.27	3.66
Delivered to Consumers					
Residential.....	6.16	6.41	6.06	6.34	6.94
Commercial.....	5.22	5.44	5.05	5.40	5.79
Industrial.....	3.07	3.05	2.71	3.42	3.59
Vehicle Fuel.....	4.27	4.11	3.98	4.34	4.44
Electric Utilities.....	2.61	2.28	2.02	2.69	2.74

NA = Not available.

Notes: Beginning in 1987, prices for gas delivered to consumers are calculated using only on-system sales data. No imputations are made for prices of gas delivered for the account of others. In previous years, prices were calculated using reported values and values imputed for gas delivered for the account of others. The United States includes the 50 states and the District of Columbia. Totals may not equal sum of components due to independent rounding. Beginning in 1996, consumption of natural gas for agricultural use was classified as industrial use. In 1995 and earlier years, agricultural use was classified as commercial use.

Sources: Energy Information Administration (EIA), Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition"; Form EIA-627, "Annual Quantity and Value of Natural Gas Report" (1993 through 1995); Form EIA-895, "Monthly Quantity and Value of Natural Gas Report" (1996 and 1997); Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers"; Form EIA-816, "Monthly Natural Gas Liquids Report"; Form EIA-64A, "Annual Report of the Origin of Natural Gas Liquids Production"; Form EIA-759, "Monthly Power Plant Report"; Form FERC-423, "Monthly Report of Cost and Quality of Fuels for Electric Plants"; Form EIA-191, "Underground Gas Storage Report"; Form FPC-14, "Annual Report for Importers and Exporters of Natural Gas" (1993 and 1994); Office of Fossil Energy, U.S. Department of Energy, Natural Gas Imports and Exports (1995 through 1997); U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves, Annual Reports, DOE/EIA-0216; and the U.S. Minerals Management Service.

Figure 3. Natural Gas Supply and Disposition in the United States, 1997
(Trillion Cubic Feet)

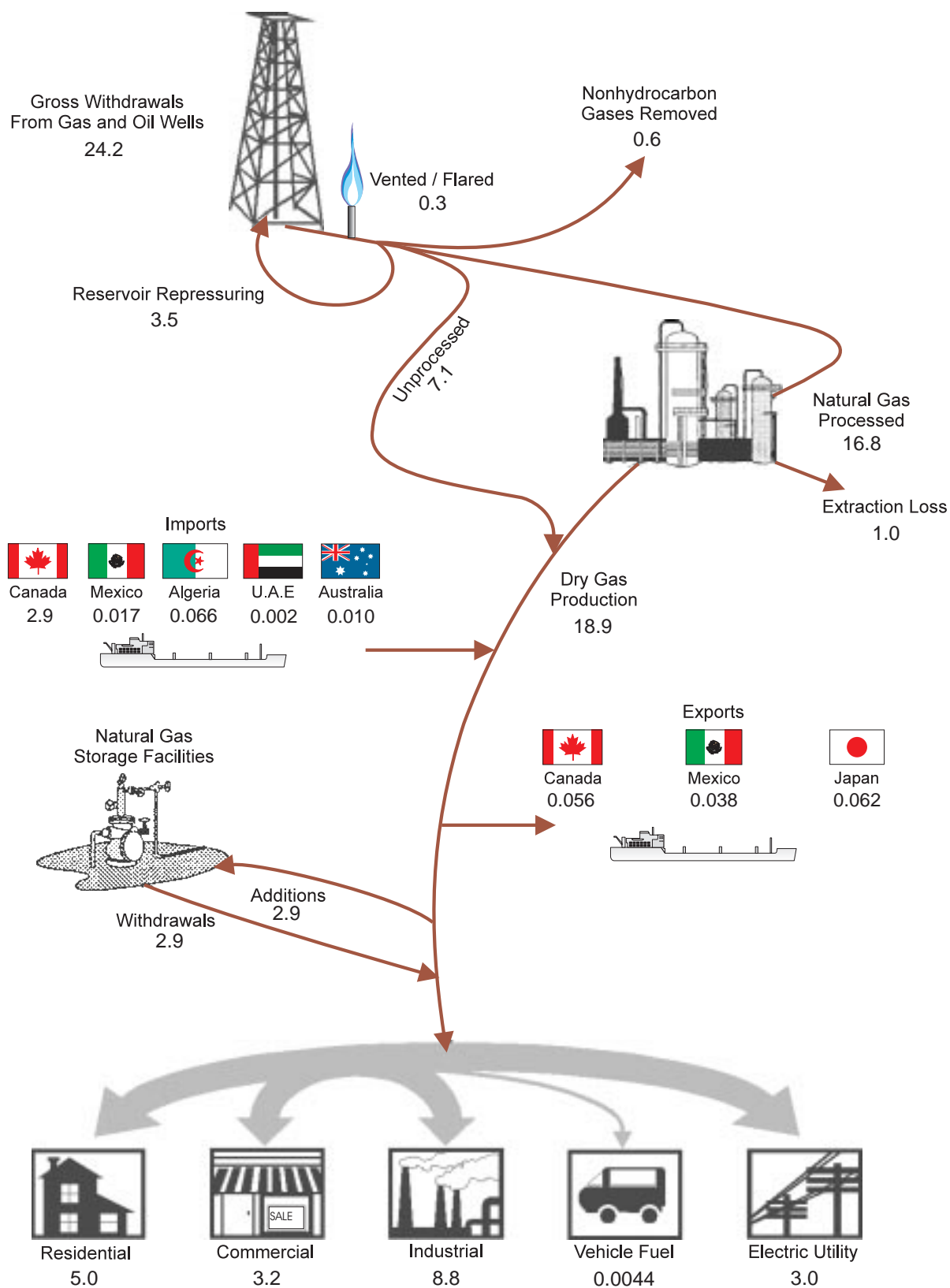


Table 2. Natural Gas Production, Transmission, and Consumption by State, 1997
(Million Cubic Feet)

State	Marketed Production	Extraction Loss	Balancing Item ^a	Net Interstate Movements ^b	Net Movements Across U.S. Borders ^c	Net Storage Changes ^c	Supplemental Gas Supplies	Consumption
Alabama	583,272	4,637	-70,095	-185,706	0	587	21	322,270
Alaska	468,311	41,535	60,798	0	-62,187	0	0	425,387
Arizona	452	0	9,469	125,217	-3,901	0	0	131,237
Arkansas	208,514	554	-17,978	72,846	0	-261	0	263,089
California	285,690	11,600	-14,363	1,671,128	-308	-16,398	0	1,946,945
Colorado	637,375	28,851	-225,105	-83,263	0	525	6,314	305,945
Connecticut	0	0	197	136,910	0	94	37	137,049
D.C.	0	0	-1,074	35,144	0	0	0	34,070
Delaware	0	0	2,266	44,214	0	-8	2	46,490
Florida	6,114	1,563	-21,960	503,126	0	0	0	485,717
Georgia	0	0	-7,724	369,230	0	-153	14	361,672
Hawaii	0	0	-6	0	0	0	2,617	2,611
Idaho	0	0	16,288	-805,867	856,503	32	0	66,892
Illinois	231	200	62,533	1,020,287	0	9,952	4,165	1,077,065
Indiana	526	0	-74,012	627,176	0	-331	3,580	557,602
Iowa	0	0	-30,437	291,581	0	6,496	137	254,785
Kansas	687,215	38,224	-54,836	-248,265	0	11,372	0	334,518
Kentucky	79,547	2,404	4,299	143,416	0	-3,013	24	227,894
Louisiana	5,229,821	150,008	241,455	-3,681,223	30,596	11,422	0	1,659,218
Maine	0	0	-231	6,444	0	-2	31	6,247
Maryland	118	0	-42,878	251,756	0	1,730	178	207,443
Massachusetts	0	0	13,626	315,791	47,183	-3,517	147	380,263
Michigan	305,950	6,147	-95,525	1,306,300	-549,710	3,388	22,238	979,719
Minnesota	0	0	-17,106	-579,348	950,706	344	172	354,080
Mississippi	107,300	300	103,806	40,809	0	-3,763	0	255,378
Missouri	5	0	9,645	273,663	0	453	719	283,579
Montana	52,437	409	-8,272	-568,869	572,977	-11,962	0	59,827
Nebraska	1,670	0	114,442	17,627	0	1,712	134	132,160
Nevada	9	0	14,679	114,006	0	61	0	128,633
New Hampshire	0	0	-542	21,287	0	0	102	20,846
New Jersey	0	0	47,692	567,479	0	596	6,464	621,039
New Mexico	1,558,633	109,046	-45,180	-1,137,763	0	-2,065	0	268,709
New York	16,188	0	105,439	450,079	656,332	561	881	1,228,357
North Carolina	0	0	-24,878	239,413	0	330	0	214,204
North Dakota	52,401	5,076	-5,464	-46,569	7,672	0	53,179	56,143
Ohio	116,246	83	-38,240	826,767	0	7,336	1,423	898,777
Oklahoma	1,703,888	96,830	-49,425	-988,152	0	9,482	0	560,000
Oregon	1,173	0	-9,392	181,173	0	1,364	2	171,592
Pennsylvania	80,000	734	-104,242	688,887	0	-29,618	135	693,664
Rhode Island	0	0	-16,425	98,868	0	-476	18	82,938
South Carolina	0	0	19,228	134,208	0	-455	10	153,901
South Dakota	687	0	-1,783	36,487	0	0	30	35,421
Tennessee	1,510	0	-16,306	296,613	0	-541	19	282,377
Texas	6,453,873	391,174	242,357	-2,347,584	-16,920	-10,035	0	3,950,587
Utah	257,139	17,872	-14,947	-51,590	0	7,571	0	165,159
Vermont	0	0	-3,153	-8,134	19,343	0	6	8,061
Virginia	58,249	0	-30,329	213,228	0	108	350	241,389
Washington	0	0	-41,478	-86,505	360,261	1,051	0	231,228
West Virginia	172,268	7,179	77,582	-100,347	0	-16,716	0	159,040
Wisconsin	0	0	7,584	393,058	0	51	5	400,596
Wyoming	738,368	49,333	6,045	-595,034	0	-908	0	100,955
Total	19,865,182	963,759	76,044	0	2,868,547	-23,603	103,153	21,972,770

^a Balancing Item volumes are equal to Total Disposition (net storage changes plus extraction loss plus consumption) minus Total Supply (marketed production plus net interstate movements plus net movements across U.S. borders plus supplemental gas supplies).

^b Positive numbers denote net receipts; negative numbers denote net deliveries.

^c Negative numbers indicate withdrawals from storage in excess of additions to storage and are, therefore, additions to total supply.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Energy Information Administration (EIA), Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition"; Form EIA-895, "Monthly Quantity and Value of Natural Gas Report"; Form EIA-816, "Monthly Natural Gas Liquids Report"; Form EIA-64A, "Annual Report of the Origin of Natural Gas Liquids Production"; and the U.S. Minerals Management Service.